

## United States Patent and Trademark Office

RF NT OF COMMERCE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

		•			
APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/386,646	08/31/1999	PIERRE C. FAZAN	660073.488D1	1639	
27076 7	7590 12/03/2003		EXAM	EXAMINER	
201021 00	WHITNEY LLP	VU, HUNG K			
INTELLECTU SUITE 3400	JAL PROPERTY DEPAR	ART UNIT	PAPER NUMBER		
1420 FIFTH A	VENUE	2811			
SEATTLE, W	'A 98101	DATE MAILED: 12/03/2003			

Please find below and/or attached an Office communication concerning this application or proceeding.

Application No.   Application No.   Doy386,486   FaZAN ET AL		<u> </u>					M				
Period for Reply  AS HORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  Estatasions of time may be available under the provisions of 3 °C FR 1.136(d). In no event, however, may a reply be timely filled.  If NO period for reply is available under the provisions of 3 °C FR 1.136(d). In no event, however, may a reply be timely filled.  If NO period for reply specified above, the maintenin priod of the statulatory minimum of thinky (30) days will be considered timely.  If NO period for reply specified above, the maintenin priod will seply and will expens SX (50 MON) HTS from the mailing date of this communication. Feature is reply specified above, the maintenin priod will seply and will expens SX (50 MON) HTS from the mailing date of this communication. Feature is reply specified above, the maintening date of this communication. Plant is the mailing date of this communication. Plant is mailing date of this communication.  Status  1)⊠ Responsive to communication(s) filled on 10 September 2003.  2a) ☐ This action is FINAL. 2b)☑ This action is non-final.  3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Exparte Quayle, 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4)☑ Claim(s) 44-68 is/are pending in the application.  4)② Claim(s) 44-68 is/are pending in the application.  4)② Claim(s) 53-63-68 and 69 is/are rejected.  5)② Claim(s) 54-67 is/are visited to 54-68 is/are allowed.  6)② Claim(s) 54-67 is/are visited to 54-68 is/are allowed.				Application	n No.	Applicant(s)					
Period for Reply  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE of this communication app ars on th cover she t with the correspond no address—  Period for Reply  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  Eathersides from many be evaluable under the proteinse of JCPR 1.136(a). In a event, however, may a reply be timely filled  Eatherside to the many be available under the proteinse of JCPR 1.136(a). In a event, however, may a reply be timely filled  Eatherside to the many be available under the proteinse of JCPR 1.136(a). In a event, however, may a reply be timely filled  Eatherside to the many be available under the proteinse of JCPR 1.136(a). In a event, however, may a reply be timely filled  I the period for reply specified show is the shall be addressed and the second-second transplant of the period of this communication.  I NO period for reply to specified above is the shall be a think the shall be addressed and the second-second transplant of the communication.  I NO period for reply specified above the manifest date of this communication, even if timely filled, may reduce any search particular than a department.  Status  1) Sesponsive to communication (s) filled on 10 Seatember 2003.  2a) This action is FINAL.  2b) This action is non-final.  3) Since this application is in condition for allowance except for formal matters, prosecution as to the ments is closed in accordance with the practice under Ex parts Quayle, 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4) Claim(s) 44-68 is/are pending in the application.  4a) Of the above daim(s)	Office Action Comments		09/386,646	6	FAZAN ET AL.						
The MALING DATE of this communication app ars on the cover she t with the correspond not address - Period for Reply  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  Extensions or time may be available under the provision of 3 CFR 1.13(d), in no event, however, may a reply be timely filed  Extensions or time may be available under the provision of 3 CFR 1.13(d), in no event, however, may a reply be timely filed  Extensions or time may be available under the provision of 3 CFR 1.13(d), in no event, however, may a reply be timely filed  Extensions or time may be available under the provision of 15 CFR 1.13(d).  If the period for reply specified above is less than thirty (30) days, a reply which the satisfactory interval to the replace of the communication of the provision of the replace of the communication, even filminy filed, may review any secure application to secone ARANDONIDO (35 U.S.C. § 133).  Responsive to communication(s) filed on 10 September 2003:  2a) This action is FINAL.  2b) This action is finAL.  2b) This action is non-final.  3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4) Claim(s) 44-58 is/are pending in the application.  4a) Of the above claim(s) is/are withdrawn from consideration.  5) Claim(s) 34-58 and 69 is/are edited.  7) Claim(s) 34-52 and 61 - 68 is/are allowed.  8) Claim(s) 34-52 and 69 is/are edited.  7) Claim(s) 54-52 and 69 is/are edited.  7) Claim(s) 34-52 and 69 is/are edited.  8) Claim(s) 35-55-58 and 60 is/are rejected.  7) Claim(s) 44-61 - 68 is/are allowed.  9) The specification is objected to by the Examiner.  10) The drawing(s) filed on is/are: a) accepted or b)		Office Action Summary		Examin r		Art Unit					
Period for Reply  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  Extensions of them may be available under the previous of 37 CFR 1.38(a). In no event, however, may a reply be timely filed  Extensions of them may be available under the previous of 37 CFR 1.38(a). In no event, however, may a reply be timely filed  Extensions of them may be available under the previous of 37 CFR 1.38(a). In no event, however, may a reply be timely filed  Extensions of them may be available under the previous of 37 CFR 1.74(b).  If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. Provided the provious of a control of the communication of the communication. Provided the provious of the mailing date of this communication, even if timely filed, may reforce any control of the communication. Provided the communication, even if timely filed, may reforce any control of the communication of the communication, even if timely filed, may reforce any control of the communication of the communication, even if timely filed, may reforce any control of the communication of the communication.  1) Responsive to communication(s) filed on 10 September 2003.  2a) This action is FilhAL. 2b) This action is non-final.  3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4) Claim(s) 44-68 is/are pending in the application of allowance and the provided of the above claim (s) is/are allowed.  6) Claim(s) 34-58 and 59 is/are objected to be claim for maximum from consideration.  5) Claim(s) 35-58 and 59 is/are objected to be reformed to the province of the pr				-		· ·					
THE MAILING DATE OF THIS COMMUNICATION.  Extensions of time may be available under the provision of 37 cFt 1.13(d). In no event, however, may a reply be timely filed other SX (6) MONTHS from the mailing date of his communication.  It no provides to the mailing date of the communication.  It no provides to make the mailing date of the communication.  It no provides the mailing date of the communication.  It no provides the mailing date of this communication.  It no provides the mailing date of this communication, even if timely filed, may reduce any seamed patent term ediplication to become ABANDONED (03 U.S.C. § 133). Any reply received by the Office term the three maining date of this communication, even if timely filed, may reduce any seamed patent term ediplication is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4) ○ Claim(s) 44-68 Is/are pending in the application.  4a) Of the above claim(s) is/are withdrawn from consideration.  5) ○ Claim(s) 44-58 is/are pending in the application.  4a) Of the above claim(s) is/are allowed.  5) ○ Claim(s) 34-55 and 60 is/are rejected.  7b ○ Claim(s) 54-55 and 60 is/are rejected.  7c ○ Claim(s) 54-55 and 60 is/are rejected.  7c ○ Claim(s) 54-55 and 60 is/are allowed.  6c ○ Claim(s) 56-56 and 60 is/are all											
2a) This action is FINAL. 2b)⊠ This action is non-final.  3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4) Claim(s) 44-68 is/are pending in the application. 4a) Of the above claim(s)	THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).										
Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.    Disposition of Claims	1)⊠	Responsive to communication(s) fi	iled on <u>10 Se</u>	eptember 20	<u>003</u> .						
closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4)	2a) <u></u> ☐	This action is FINAL.	2b)⊠ This a	action is no	n-final.						
4)	3)□										
4a) Of the above claim(s) is/are withdrawn from consideration.  5) □ Claim(s) 44 - 52 and 61 - 68 is/are allowed.  6) □ Claim(s) 53.55-88 and 60 is/are rejected.  7) □ Claim(s) 54 and 59 is/are objected to.  8) □ Claim(s) are subject to restriction and/or election requirement.  Application Papers  9) □ The specification is objected to by the Examiner.  10) □ The drawing(s) filed on is/are: a) □ accepted or b) □ objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) □ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. §§ 119 and 120  12) □ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) □ All b) □ Some * Cl□ None of:  1 □ Certified copies of the priority documents have been received.  2 □ Certified copies of the priority documents have been received in Application No.  3 □ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  13) □ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  a) □ The translation of the foreign language provisional application has been received.  14) □ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.	Disposition of Claims										
5) ☐ Claim(s) 44 – 52 and 61 - 68 is/are allowed. 6) ☐ Claim(s) 53.55-58 and 60 is/are rejected. 7) ☐ Claim(s) 54 and 59 is/are objected to. 8) ☐ Claim(s) 54 and 59 is/are objected to. 8) ☐ Claim(s) — are subject to restriction and/or election requirement.  Application Papers  9) ☐ The specification is objected to by the Examiner. 10) ☐ The drawing(s) filed on — is/are: a) ☐ accepted or b) ☐ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. §§ 119 and 120  12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☐ All b) ☐ Some * c) ☐ None of:  1. ☐ Certified copies of the priority documents have been received. 2. ☐ Certified copies of the priority documents have been received in Application No 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78. a) ☐ The translation of the foreign language provisional application has been received.  14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  Attachment(s)  1) ☐ Notice of References Cited (PTO-892)  Notice of Informal Patent Application (PTO-152)	4)⊠ Claim(s) <u>44-68</u> is/are pending in the application.										
6) Claim(s) 53.55-58 and 60 is/are rejected. 7) Claim(s) 54 and 59 is/are objected to. 8) Claim(s) are subject to restriction and/or election requirement.  Application Papers  9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. §§ 119 and 120  12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received. 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  All All All All All All All All All Al	•										
7) Claim(s) 54 and 59 is/are objected to. 8) Claim(s) are subject to restriction and/or election requirement.  Application Papers  9) The specification is objected to by the Examiner.  10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. §§ 119 and 120  12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some *c) None of:  1. Certified copies of the priority documents have been received.  2. Copies of the certified copies of the priority documents have been received in Application No.  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  *See the attached detailed Office action for a list of the certified copies not received.  13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  a) The translation of the foreign language provisional application has been received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  Attachment(s)  1) Notice of References Cited (PTO-892)  Notice of Informal Patent Application (PTO-152)	5)⊠ Claim(s) <u>44 – 52 and 61 - 68</u> is/are allowed.										
8  Claim(s) are subject to restriction and/or election requirement.  Application Papers  9  The specification is objected to by the Examiner.  10  The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. §§ 119 and 120  12  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a)  All b	·	6)⊠ Claim(s) <u>53,55-58 and 60</u> is/are rejected.									
Application Papers  9) The specification is objected to by the Examiner.  10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. §§ 119 and 120  12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some *c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  *See the attached detailed Office action for a list of the certified copies not received.  13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.  37 CFR 1.78.  a) The translation of the foreign language provisional application has been received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.		<u> </u>									
9) The specification is objected to by the Examiner.  10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. §§ 119 and 120  12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.  37 CFR 1.78.  a) The translation of the foreign language provisional application has been received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	8) Claim(s) are subject to restriction and/or election requirement.										
10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. §§ 119 and 120  12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  a) The translation of the foreign language provisional application has been received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of References Cited (PTO-892)  3) Notice of Informal Patent Application (PTO-152)	Applicati	ion Papers									
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. §§ 119 and 120  12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No.  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  a) The translation of the foreign language provisional application has been received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  Attachment(s)  1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413) Paper No(s).	9) The specification is objected to by the Examiner.										
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. §§ 119 and 120  12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some *c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No.  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.  37 CFR 1.78.  a) The translation of the foreign language provisional application has been received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  Attachment(s)  1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413) Paper No(s).  1- Notice of Informal Patent Application (PTO-152)	10)	10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.									
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. §§ 119 and 120  12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No.  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.  37 CFR 1.78.  a) The translation of the foreign language provisional application has been received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  Attachment(s)  1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413) Paper No(s).  Notice of Draftsperson's Patent Drawing Review (PTO-948)											
Priority under 35 U.S.C. §§ 119 and 120  12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No.  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.  37 CFR 1.78.  a) The translation of the foreign language provisional application has been received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  Attachment(s)  1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413) Paper No(s).  5) Notice of Informal Patent Application (PTO-152)											
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No.  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.  37 CFR 1.78.  a) The translation of the foreign language provisional application has been received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  Attachment(s)  1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413) Paper No(s).  5) Notice of Informal Patent Application (PTO-152)	r · · · · · · · · · · · · · · · · · · ·										
a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No	•										
since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.  37 CFR 1.78.  a)  The translation of the foreign language provisional application has been received.  14)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  Attachment(s)  1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413) Paper No(s).  5) Notice of Informal Patent Application (PTO-152)	<ul> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No.</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>										
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 4) Interview Summary (PTO-413) Paper No(s) 5) Notice of Informal Patent Application (PTO-152)	since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.  37 CFR 1.78.  a) The translation of the foreign language provisional application has been received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific										
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  5) Notice of Informal Patent Application (PTO-152)	Attachmen	t(s)			_						
· · · · · · · · · · · · · · · · · · ·	2) Notic	e of Draftsperson's Patent Drawing Review									

Art Unit: 2811

#### **DETAILED ACTION**

#### Request for Continued Examination

A request for continued examination (RCE) under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicants' submission filed on 09/10/03 has been entered. An action on the RCE follows.

#### Claim Objections

2. Claim 1 is objected to because of the following informalities: In claim 1, line 6, "the first gate structure" should be changed to "the gate structure" for clarity. Appropriate correction is required.

#### Claim Rejections - 35 USC § 112

- 3. The following is a quotation of the second paragraph of 35 U.S.C. 112:
  - The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 55 and 60 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 55 and 60, lines 3-5, it is unclear as to what "a having second thickness" being Art Unit: 2811 referred to.

# Claim Rejections - 35 USC § 103

- The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all 4. obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are section 102 of this title, if the differences between the subject matter sought to be paterned and the prior an are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 53 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al. (PN 5,296,400, of record) in view of Poppert et al. (PN 4,593,459, of record).

Park et al. discloses, as shown in Figures 1F and 2H, a microelectronic device comprising:

- a microelectronic substrate (1);
- a gate oxide layer (4) formed on the substrate;
- a polysilicon gate layer (lower portion of 5) formed on the gate oxide layer;
- a field oxide (3) having a field oxide level between the level of an upper surface of the substrate and the level of an upper surface of the polysilicon gate layer.

Park et al. discloses the field oxide is a LOCOS. Park et al. does not disclose the field oxide is a trench isolation. However, Poppert et al. discloses a microelectronic device comprising a trench isolation (46,47). Note Figure 10 of Poppert et al.. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to form the field oxide of Park et al. by trench isolation, such as taught by Poppert et al. in order to prevent the bird-beak effect and further isolate the devices from each others.

Art Unit: 2811

With regard to claim 56, as shown in Figures 1F and 2H, Park et al. discloses a microelectronic device comprising:

a microelectronic substrate (1);

a gate oxide layer (4) formed on the substrate;

a polysilicon gate layer (lower portion of 5) formed on the gate oxide layer;

a field oxide (3) having a field oxide level between the level of an upper surface of the substrate and the level of an upper surface of the polysilicon gate layer;

a polysilicon adhesion layer formed over the polysilicon gate layer and the upper surface

Park et al. discloses the field oxide is a LOCOS. Park et al. does not disclose the field oxide is a of the field oxide. trench isolation. However, Poppert et al. discloses a microelectronic device comprising a trench isolation (46,47). Note Figure 10 of Poppert et al.. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to form the field oxide of Park et al. by trench isolation, such as taught by Poppert et al. in order to prevent the bird-beak effect and further isolate the devices from each others.

Claims 57 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al. (PN 5,296,400, of record) in view of Poppert et al. (PN 4,593,459, of record) and further in view of Lin et al. (PN 5,318,924, of record).

Park et al. and Poppert et al. discloses the invention substantially as claimed including the microelectronci device as recited in the rejection above. Park et al. and Poppert et al. do not disclose the device further comprising a silicide layer formed on the adhesion layer. However,

Art Unit: 2811 Lin et al. discloses a silicide layer (32) formed on the adhesion layer (26). Note Figure 6 of Lin et al.. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to form the device of Park et al. and Poppert et al. having a silicide layer on the adhesion layer, such as taught by Lin et al. in order to further reduce the contact resistance.

With regard to claim 58, Park et al., Poppert et al. and Lin et al. discloses the silicide comprising titanium silicide. Park et al., Poppert et al. and Lin et al. do not disclose the silicide layer comprises tungsten silicide. However, at Col. 4, lines 44-49, other refractory metals can be used in place of titanium. It is well-known that other refractory metals include tungsten. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute titanium with tungsten, since titanium and tungsten are both considered to be an art recognized functional equivalent as the refractory metal silicide material for semiconductor device.

# Allowable Subject Matter

- Claims 54 and 59 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base 6. claim and any intervening claims.
  - Claims 44 52 and 61 68 are allowed. 7.
  - The following is an examiner's statement of reasons for allowance: 8.

Art Unit: 2811

Applicant's claims 44 - 52, 54, 59 and 61 - 68 are allowable over the references of record because none of these references disclose or can be combined to yield the claimed device comprising the second gate layer for the portion of the component structure formed on the isolation pad having a second height relative to the surface of the substrate surface les than the first height, as recited in claim 44, in combination with the remaining claimed limitations, the second gate layer for the portion of the component structure formed on the isolation pad having a second thickness greater than the first thickness, as recited in claim 49, in combination with the remaining claimed limitations, the polysilicon adhesion layer having an upper surface over the upper surface of the field oxide below the upper surface of the polysilicon adhesion layer over the polysilicon gate layer, as recited in claims 54 and 59, in combination with the remaining claimed limitations

### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung K. Vu whose telephone number is (703) 308-4079. The 9. examiner can normally be reached on Mon-Thurs 6:00-3:30, alternate Friday 7:00-3:30, Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie C. Lee can be reached on (703) 308-1690. The Central Fax Number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Art Unit: 2811

Vu

November 24, 2003

Hunglh

Hung Vu

Patent Examiner